CLAIMS

1 - A process for the preparation of 1,1,1,3,3-pentafluoropropane, according to which 1,1,1,3,3-pentachloropropane is reacted with hydrogen fluoride in the presence of a hydrofluorination catalyst.

2 - The process of Claim 1, wherein the reaction is carried out continuously in a liquid phase with a molar ratio of the catalyst to 1,1,1,3,3-pentachloropropane maintained from 0.001 to 1000.

3 - The process of claim 2, wherein the molar ratio of the catalyst to 1,1,1,3,3-pentachloropropane is maintained superior to 0.5.

4 - The process of Claim 2, wherein the reaction is carried out at a temperature and under a pressure at which 1,1,1,3,3-pentafluoropropane is gaseous and wherein 1,1,1,3,3-pentafluoropropane and hydrogen chloride are drawn off in a gaseous phase as they are being formed.

5 - The process of Claim 2, wherein the hydrofluorination catalyst is chosen from tin and antimony chlorides, fluorides and chlorofluorides.

6 - The process of Claim 2, wherein the catalyst used is antimony pentachloride.

7 - The process of Claim 2, wherein from 5 to 100 moles of hydrogen fluoride are used per mole of 1,1,1,3,3-pentachloropropane.

8 - The process of Claim 2, wherein the reaction is carried out at a temperature of approximately 50 to 150°C and at a pressure of 2 to 40 bar.

9 - The process of Claim 2, wherein the 1,1,1,3,3-pentachloropropane used is prepared by reaction between vinyl chloride and tetrachloromethane.

10 - A process for the preparation of 1,1,1,3,3-pentachloropropane usable especially for preparing 1,1,1,3,3-pentafluoropropane, in which vinyl chloride and tetrachloromethane are reacted continuously in the presence of a telomerization catalyst chosen from copper compounds.

11 - The process of Claim 10, wherein the reaction is operated in a reaction mixture in which the molar ratio of the catalyst to vinyl chloride is maintained from 0.001 to 1000.

12 - The process of Claim 10, wherein the reaction is operated in a reaction mixture in which the molar ratio of tetrachloromethane to vinyl chloride is maintained from 1.5 to 1000.

13 - The process of Claim 10, wherein the telomerization catalyst is an organic copper compound.

14 - The process of Claim 10, wherein the telomerization catalyst is a copper chloride, preferably copper(I) chloride.

15 - The process of Claim 10, wherein the telomerization reaction is carried out in the presence of a solvent.

16 - The process of Claim 15, wherein the solvent is a nitrile, preferably acetonitrile or propionitrile.

17 - The process of Claim 10, wherein the telomerization reaction is carried out in the presence of a co-catalyst.

18 - The process of Claim 17, wherein the co-catalyst is an amine.